CLAIMS

We claim:

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A method of reducing one or more deleterious side effect of radiation treatment in a subject undergoing radiation treatment, comprising administering to said subject a side-effect reducing amount of a selective cyclooxygenase-2 inhibitor.

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- 2. The method of claim 1, wherein the cyclooxygenase inhibitor is rofecoxib.
- 3. The method of claim 1, wherein the cyclooxygenase-2 inhibitor is celecoxib.
- 4. The method of claim 1, wherein the reduced side effect comprises an acute mucosal effect of radiation on the urinary or gastrointestinal tract.
- 5. The method of claim 1, wherein the side effect reduced comprises fatigue.
- 6. The method of claim 1, wherein the reduced side effect comprises a disorder selected from the group consisting of diarrhea, rectal bleeding, proctitis, and sigmoiditis.
- 7. The method of claim 1, wherein the reduced side effect comprises urinary frequency, prostatitis, or cystitis.
- 8. The method of claim 1, wherein the radiation treatment is directed outside the pelvis.
- 9. The method of claim 1, wherein the reduced side effect comprises dermatitis.

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